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A SMALL GATHERING OF BLACKBERRIES

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(Plates 1093–1096)

In attempting to make a possibly usable treatment of *Rubus*, subg. *Eubatus* Focke, the Blackberries, I have succeeded in preparing a treatment of the trailing and root-tipping sections, a most difficult task in view of the very contradictory statements or illustrations in the original accounts or in discussions of the species. Nevertheless, in this rather thankless and baffling study a few plants have come to light which seem to need description or realignment. These are proposed below. It has, of course, been imperative constantly to lean on the voluminous writings on the group of the always prolific Bailey in his *Gentes Herbarum*. With full respect for four-score-and-ten and with the affection one feels for a student of unequaled energy, it is regrettable to find that his recent publications show too many evidences of haste and lack of careful checking. A few puzzling cases noted below show the utter perplexity into which the interpreter is led.

In their *Blackberries of New England*, Vt. Agr. Expt. Sta. Bull. 217: 78 (1920), Brainerd & Peitersen gave, as Plate XXXVI, an illustration ($\times 8/11$) of a supposed hybrid *Rubus* with canes shown as bearing hooked prickles 2.7–3.6 mm. long; the terminal primocane-leaflet narrowly ovate and tapering gradually to a long acumination, the leaflet two thirds as broad as long; the flowering shoot prickly; the lowest pedicel (about 4.5 cm. long) subtended by a dilated and long-petioled leafy bract 3–3.4 cm.

broad; pedicels glabrous; calyx reflexed, its lobes very short-tipped and much shorter than the large (1 cm. or more thick) fruit with 20 or more plump drupelets. In Gent. Herb. vii. 306 and 307, fig. 119 (1947) the Brainerd & Peitersen plate is cited as that of the newly proposed *R. jactus* Bailey: "This plant is figured by Brainerd and Peitersen . . . in Plate xxxvi". But how completely different are the new illustration (Bailey's fig. 119) and his description: *R. jactus* with "Primocanes . . . nearly nude but bearing a very few minute prickles 1-2 [instead of stoutish and 2.7-3.6] mm. long that readily rub off", the canes, as drawn, suggesting pencils or macaroni; terminal primocane-leaflet subrotund-ovate (four-fifths as broad as long) and abruptly tipped; the flowering shoot prickless except at summit; the glandular pedicels (up to only 3 cm. long) all illustrated as subtended by small stipule-like bracts at most 8 mm. broad (although the English text says "axillary pedicels each . . . subtended by a conspicuous broad bract, nearly or quite equalling the foliage"); calyx-lobes erect and much overtopping the tiny fruit, with conspicuous slender appendages, illustrated as nearly as long as the lanceolate blade (although the Latin description says "calycis lobi lati . . . non valde extenti"). What does one do; take into account the plate of Brainerd & Peitersen (technically it should be disregarded), follow the description, which as to several characters contradicts the seemingly accurate new figure, or follow the new illustration? Technically the type-specimen must settle the matter but when one is working against time to cover the whole vascular flora (perhaps 7000-8000 nos.) of a large area he can not take out the months necessary for careful study of types not at hand—especially with the constant dread of hundreds of other hastily published clonic species.

As the type of *Rubus flagellaris* Willd. there is shown in Gent. Herb. v. fig. 99 on p. 245 (1943) a drawing of a plant so named in the Willdenow Herbarium. This has the larger simple bracteal leaves of the inflorescence very broadly ovate to oblate or sub-reniform, the terminal leaflet of the primocane-leaf short-tipped and with nearly cuneate base, the pedicels forking. But as nearest matching it we are shown (fig. 100 on p. 248) a simple bracteal leaf much longer than broad and terminal primocane-leaflets long-acuminate and with rounded-cordate bases. Far-

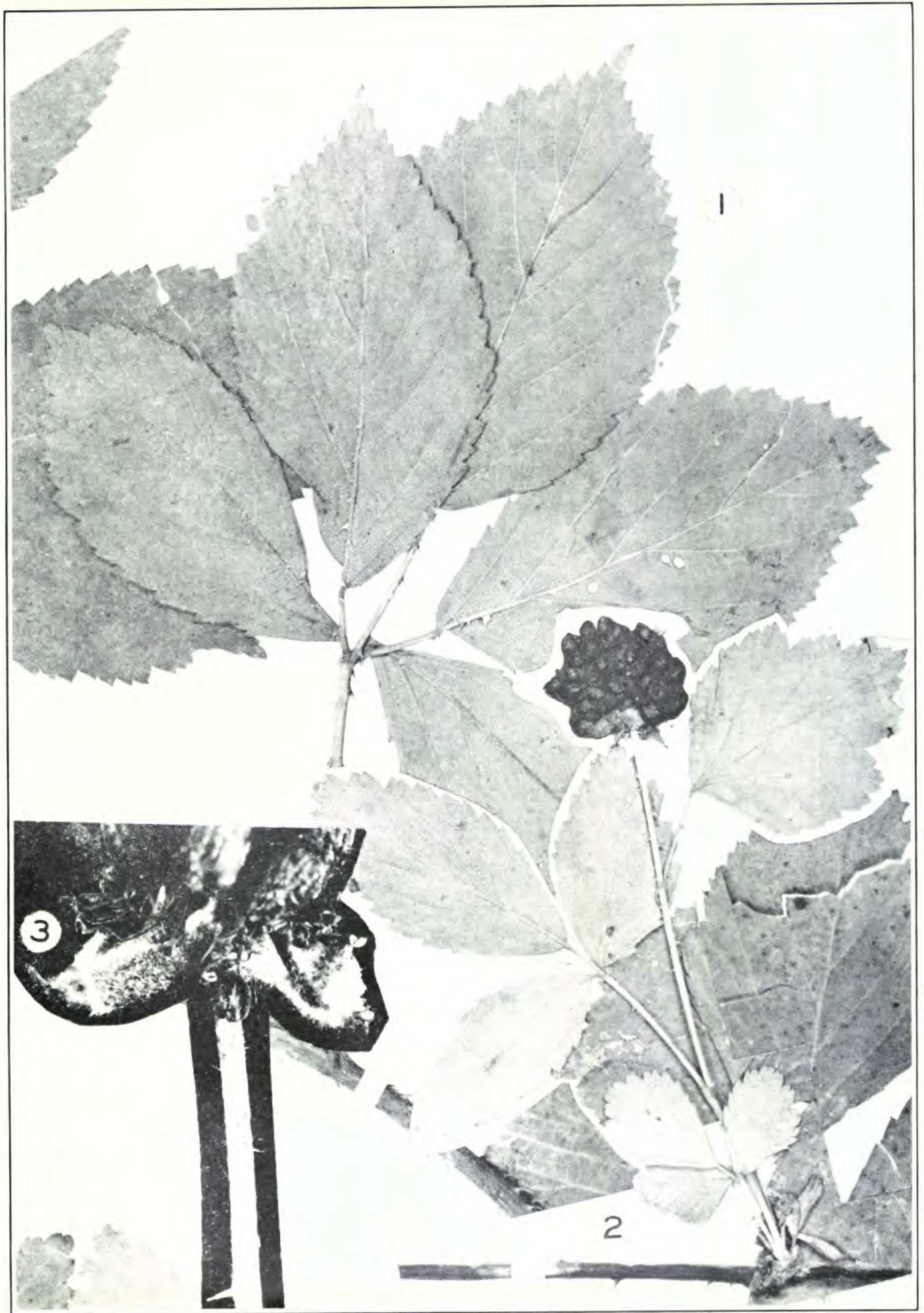


Photo. B. G. Schubert

RUBUS LONGIPES (all FIGS. from TYPE): FIG. 1, portion of primocane and leaf, $\times 1$; FIG. 2, short fruiting branchlet, $\times 1$; FIG. 3, pedicel and fruiting calyx, $\times 10$.

ther on (fig. 111) “a very distinct species in Massachusetts”, *R. felix* Bailey, is shown with bracts highly suggestive of the Willdenow specimen; and surely *R. maniseesensis* Bailey, l. c. vii. 268, 269 (fig. 95) from Rhode Island is pretty close to the Willdenow specimen, as well as to the illustration of *R. felix*. Since dewberries with just such broad bracts occur from Massachusetts, Rhode Island and Connecticut to southeastern Virginia, to one who can not now settle the question the designation of two “new species” to cover them does not seem wholly felicitous.

Another reputed ally of the problematic *Rubus flagellaris* is *R. eflagellaris* Bailey, l. c. 262, 263, fig. 91 (1947), “probably to be keyed with the *flagellaris* group rather than with the glandiferous section (page 242, Gent. Herb. v) but to be mentioned in the latter”. *R. eflagellaris* is shown in a very clear drawing as having 4 or 5 short and spreading-ascending “glandiferous pedicels” (descr., p. 262) 1.5–3 cm. long and diverging from a prolonged axis; while *R. flagellaris* sensu Bailey is described, l. c. v. 244 (1943) as “glandless throughout” and with “inflorescence ascendate”, the almost erect glandless pedicels shown in fig. 100 as 4–6.3 cm. long. If, therefore, Bailey’s groupings in his key to the *Flagellares* mean anything (and they certainly do), the newly proposed *R. eflagellaris* does not belong in his “§ I. . . . Plant without gland-tipped hairs or long pinhead glands on . . . pedicels or calyx” nor under “+Florescence.—Inflorescence . . . of the simple ascendate order or reduced to a single upright pedicel. . . . cluster lacking a continuing central rachis”, this leading to his *R. flagellaris*. In other words, the “continuing central rachis” (illustrated as 5 or 6 cm. long) and the other characters shown would seem to place *R. eflagellaris* in Bailey’s §II. (p. 242), “++Florescence.—Flowers and fruits in more or less definite cymiform or racemiform clusters, many or most of the pedicels short and flaring or divaricate . . . from the central rachis; glands only on pedicels and calyx” (p. 243) and not too far from *R. Grimesii* Bailey (discussed under the new *R. imperiorum* below) and *R. particeps* Bailey. The student who tries to visualize *R. eflagellaris* as “probably to be keyed with the *flagellaris* group rather than with the glandiferous section” is bound to go astray.

Many other such seeming contradictions form perpetual

stumbling-blocks to ready interpretation, but only three others need here be noted. *Rubus obvius* Bailey, l. c. v. 359 (fig. 159) and 360 (1943) is described with primocane-leaflets "more than one-half as broad" as long; yet the illustration shows the terminal leaflet of the uppermost expanded leaf 4 cm. long and only about 1.5 cm. broad. Does one follow the description or the illustration? In vol. v. 71 (1941) the first species keyed under "EE. Axis of primocanes conspicuously glandular-hairy" is "22. *R. vigil*". Nevertheless, turning to the description of *R. vigil* (p. 86) one reads: "Canes hard and woody, glandless" and the beautiful illustration (fig. 29) so shows them!

Lastly, if foliage-characters mean so much that every slight divergence in outline, number of trichomes, toothings, etc. always means a "new species", look at the original plate (not cited in Gent. Herb. v. 254) of *R. canadensis*, var. *roribaccus* Bailey in Am. Gard. xi. 642, with plate as frontispiece (1890), then look at fig. 102 in Gent. Herb. l. c. (nearly like the original plate, with the bracteal leaves or leaflets narrow and much longer than broad). Then turn over to fig. 103, also called *R. roribaccus*, with broadly cordate-ovate bracts. If these are all one species, simply modified by transplanting, are not 90% of recent propositions open to serious doubt as to their fundamental or stable characters? Perhaps not; it is more probable that the cordate-bracted plant is not *R. roribaccus*.

RUBUS TRIFRONS Blanchard, var. **pudens** (Bailey), stat. nov. *R. pudens* Bailey, Gent. Herb. v². 78, fig. 26 (1941).

The large series of *Rubus trifrons* which has been assembled in the Gray Herbarium and the herbarium of the New England Botanical Club shows typical *R. trifrons*, with the primocanes copiously bristly, to pass into *R. pudens*, in which the primocanes are essentially smooth or with only few scattered bristles. In the most typical *R. trifrons* the petioles of the primocane-leaves are rather copiously bristly, in the illustration of *R. pudens* shown as nearly bristleless. Both series show too much integration over their broad range, but the more typical and more bristly-caned *R. trifrons* is usually coarser than var. *pudens*, the former ranging from middle Nova Scotia and southern New Brunswick to eastern Ontario, eastern New York and Connecticut, while the smoother-caned and usually more slender var.

pudens extends eastward to Cape Breton Island but, so far as the material shows, does not extend west of the Connecticut Valley in Vermont, with its southwestern limit on Cape Cod. *R. trifrons* (frequently 5-foliate) varies, as do most species, in the size and outline of leaflets. The terminal primocane-leaflet may be obovate, elliptic or ovate, without any apparent constant difference in the smoothish calyx-lobes, which range from 3.5–5 mm. long, and the small petals, mostly 5–9 mm. long and 2.5–4 mm. broad. I find myself unable, therefore, to maintain *R. alter* Bailey, l. c. 82, fig. 28 and *R. harmonicus* Bailey, l. c. 86, fig. 30. All of these plants differ from *R. hispidus* Michx. in their less coriaceous and scarcely lustrous deciduous leaves, with the leaflets not so blunt and having sharper toothings. Brainerd's contention that *R. trifrons* arose through crossing of *R. hispidus* with a member of § *Setosi* was wholly reasonable. The coarser and more bristly extreme parallels typical *R. hispidus* L., the more slender and nearly smooth-caned plant simulating *R. hispidus*, var. *obovalis* (Michx.) Fernald.

RUBUS (§ FLAGELLARES) **longipes**, sp. nov. (TAB. 1093 et 1094), a *R. particulare* differt primocannae aculeis unguiculatis; primocannae foliis subtus glabrescentibus quinatis; petiolo valde armato aculeis unguiculatis recurvatis; foliolis ellipticis vel elliptico-obovatis dentato-serratis acuminatis foliolo terminali 6–7 cm. longo 4 cm. lato basi sensim rotundato petiolulo glabrato 1.7–2.5 cm. longo, foliolis mediis petiolulatis petiolulo 1–1.5 cm. longo; stipulis lanceolato-linearibus 1.5–2 cm. longis; floricanis subsimplicibus remote unguiculato-aculeatis; floricanne foliis ternatis, foliolis plerumque angusto-obovatis obtusis; flore 1 bractea ternata vel simplici; pedicello recto 1.5–3.5 cm. longo divergenter villosa deinde glabrato.—Southeastern VIRGINIA: open sandy bank near Meherrin River, south of Hugo, June 13, 1939, *Fernald & Long*, no. 10,289, distrib. as *R. Enslenii* Tratt. (TYPE in Herb. Gray.; ISOTYPE in Herb. Phil. Acad.).

Rubus longipes belongs in the usually 1-flowered series typified by *R. Enslenii* Tratt. In the latter species and the commoner and coarser *R. Baileyanus* Britton, both frequent in eastern Virginia, the pedicels and petioles, at least of flowering material, are merely appressed-pilose or glabrescent, usually without glands. The other eastern Virginian species of the series, *R. scambens* Bailey and *R. leviculus* Bailey, have the young (usually

the mature) pedicels and petioles spreading-villous and usually with stipitate glands and their mostly 3-foliolate primocane-leaves have the paired lower leaflets subsessile, *R. scambens* common, *R. leviculus* found chiefly on bottoms or slopes of the Meherrin River system. The other two species with divergent villi on pedicels and petioles which I am able to recognize in the manual-range are *R. particularis* Bailey, Gent. Herb. vii. 291, fig. 110 (1947) and the newly proposed *R. longipes*, in both of which the primocane-leaves are mostly 5-foliolate, with the upper pair of leaflets on definite petiolules. *R. particularis* of upland West Virginia has the petioles, axes of flowering shoots and pedicels densely spreading-villous but glandless, the leaves velvety beneath, and the single flowers on pedicels only 1–1.5 cm. long. *R. longipes* (for the elongate petiolules) is promptly glabrate throughout, although the fruiting pedicels rarely retain traces of long villosity and stipitate glands; its stipules are broader and longer than indicated in the illustration of *R. particularis* and the fruiting pedicels are up to 3.5 cm. long. On the lower Meherrin it is not far from the northern extension from eastern South Carolina of the extremely slender, almost herbaceous and merely short-bristly *R. leviculus*, with which it can hardly be confused.

RUBUS (§ FLAGELLARES) **imperatorum**, sp. nov. (TAB. 1095 et 1096), primocannis adscendentibus deinde prostratis angulatis glabris remote aculeatis, aculeis deltoideo-subulatis 3.5–4.5 mm. longis; primocannae foliis plerumque quinatis subtus molliter pilosis supra adpresso-pilosis; petiolo remote unguiculato-armato; foliolis caudato-acuminatis argute duplicato-dentatis, dentibus plerumque 3–5 mm. longis basin versus 3–5 mm. latis; foliolo terminali rotundato-ovato subcordato 10–11 cm. longo 7–8.5 cm. lato, petiolulo 3–3.5 cm. longo sparse piloso, foliolis mediis vix minoribus oblique ellipticis; ramulis floriferis sparse villosis subremote armatis; floricanne foliolis plerumque lobulato-dentatis dentibus obtusis 3–7 mm. longis 4–6 mm. latis, foliolo terminali et bracteis simplicibus late rhomboideis; corymbo folioso (2–) 3–8-floris; pedicellis villosis adscendentibus vel patentibus plerumque 1–3.5 cm. longis remote armatis; calycis tomentulosis inarmatis segmentis ovalibus; petalis 1.2 cm. longis 0.8 cm. latis; fructibus 1.2 cm. diametro.—VIRGINIA: in grass at edge of pine-woods 1½ miles east of Williamsburg, April 17 (*fl.*) and June 11 (*fr.*), 1921, *E. J. Grimes*, no. 3442 (TYPE, 4 sheets, in Herb. Gray.).



Photo. B. G. Schubert

RUBUS IMPERIORUM: portion of floricane, $\times 1$, from TYPE.